UERS' MANUAL

IP Dome Cameras

the Hardware

Before attempting to connect and use this dome camera, please read this manual carefully, and save this manual for the possible future use

Safety Information

Federal Communication Commission (FCC) Statement

NOTE: This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference, the user is encouraged to try to correct the interference by on or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Correct the equipment into an output o a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio / television technician for help

- FCC Caution: To assure continued compliance, any change or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Notice for customers in Canada

CAUTION

- This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

ATTENTION

- Cet appareil numerique de laclasse B respects toutes les exigencies du Reglement sur le materiel brouilleur du Canada

Preface

Congratulations to you for your purchasing of this world smallest and compact IP dome camera. It is in light weight and high performance. This camera is designed and manufactured to meet surveillance and observation requirements of today's and future's living standard.

This manual covers three versions of the speed dome in the series. The main difference among them is the lens: standard, day & night and vari-focus, which can be verified by visual.

These cameras, with high performance video server built in, can pan for 360^{o} and tilt for 90^{o} (75^{o} when use vari-focus lens) which provide you the capability to view all the spots around the places where they are installed. The cameras also give you the capability to program your own surveillance tour by setting presets of view positions. The embedded server allows you to link this device to network without use PC, and access the camera via IE browser.

You are also allowed for moving the lens manually.

You may use these cameras for Internet / WAN, intranet or local networking surveillance. With the function given by the software, you will be able to control the camera for rotation, preset setup, recall and scan to form 24-hour surveillance from remote.

We suggest that you read this manual carefully in order to use the dome properly.

Features

- Compact Size
- Built in video server for direct networking applications
- Pan for 360^{o} and tilt for 90^{o} (75^{o} when use vari-focus lens)
- Fast search speed of 300^{o} per second
- M-JPEG compression with excellent video quality
- View position preset, up to 20 spots
- Support IE browser for remote view
- Resolution options to accommodate bandwidth variation
- Easy to mount --- Embedded or bracket mount
- Night vision capability (optional function)

Hardware Construction

Day & Night Version

Vari-focus Version

Day & Night Version --- The Light Source

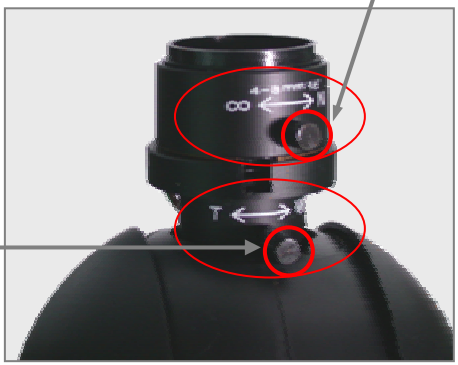
IR LED x 9
(light source in dark)

Light Sensor
(to turn LED on / off)

The sensor will turn IR LED on when environment is dark (lower than 4 lux)

Vari-focus Version --- To adjust the camera lens

Step 2: Adjust The Focus
Loosen this screw on lens side, then turn the lens until the most clear picture is acquired by visual.
Tight the screw up again after the adjustment is done



Step 1: Adjust View Angle
(zoom)
Loosen the screw on housing side, turn the zoom adjustment ring to the desired direction. "**T**" means to acquire the target in far. "**W**" means that you will see wider angle (bigger scope)

Input, Output and Power Connections On IP Dome

DC INPUT
Use the supplied DC 12V / 1.5A adapter

Video Out From Camera
For local recording; To make it, connect this to a DVR or VCR. (use **RCA** to RCA / BNC cable)

Ethernet Port;
Connect it to the network
Use **RJ-45** connector

Status Indicators

Mount The Camera

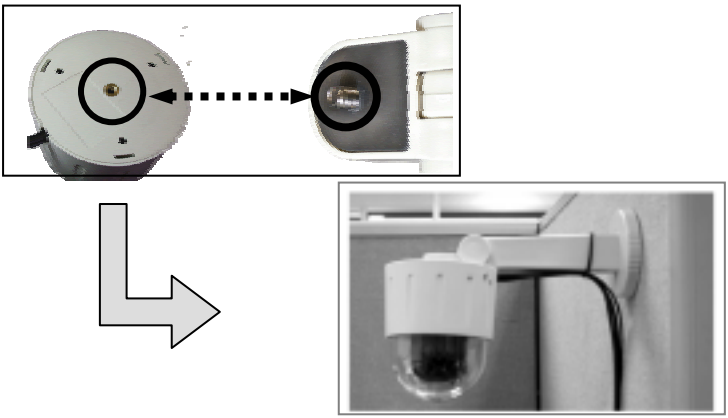
There are two ways to mount the camera.

1. Mount the camera on wall through camera holder (bracket)
2. Embed the camera into ceiling

Caution:
If you want to mount the dome to wooden wall, make sure the wood thickness is not less than 1/2 inch (1.3 cm).

Hang The Camera on Wall with Camera Holder (bracket)

The camera has a hole of 1/4" on the bottom cover, for camera holder mounting application:



1. Get the camera holder
2. Mount the camera holder onto the desired place by following the instructions given by the holder manual
3. Get the camera body and mate the hole on its base to the screw on the camera holder.
4. Turn the screw all the way in until it stops. Keep screw a little loss until the step 5 is finished
5. Rotate the camera to find the best direction so that wires will not be bended during the wiring work
6. Tighten the screw now

■ Embed The Camera Into Ceiling or Wall

The camera can be embedded into ceiling or wall with the assistance of the supplied decoration cover:

1. Drill a hole on the desired place with proper tools, in a diameter between 4-1/8 inches (10.5 cm) and 4-1/4 inches (11 cm) – make sure the hole is not **too big nor too small**
2. Get the camera and put the decoration cover on.
3. Rotate the camera body and make sure the camera body and decoration cover are locked completely
4. Insert the camera body into the hole slowly. Make sure the wires get through first
5. With the decoration cover touched to the mount surface, screw the cover onto the surface tightly through the three screw holes on the cover.

Specification

General

Scan / Search	Navigation range	Pan 360° Tilt 90° 75° (vari-focus lens)
	Search speed	Programmable, up to 300° / sec
	View Position	Programmable, Max 20 positions
	Dwell time	Programmable, Max 255 seconds
Communication	Protocol	RS-485
Video Output	Format	NTSC or PAL (optional)
	Level	1.0 V (typical)
Power	Input	DC 12
Connectivity	Network Video Output RS-485 communication DC input jack	RJ-45 ethernet connector RCA RJ-11 phone jack
Operation	Temperature	0 ~ 40℃
	Humidity	20 ~ 90% RHD
Storage	Temperature	-20℃ ~ 70℃
	Humidity	20 ~ 100% RHD
Certification	FCC, CE (pending)	
In the box	IP Dome camera User's manual Power adapter Screw Pack	1 set 1 set 1 set 1 set

Optical System

	Standard version	Day & Night	Vari-focus
Type of sensor	CCD	CCD	CCD
CCD resolution	380 lines	380 lines	480 lines
Type of lens	fixed	fixed	Vari-focus
Light sensitivity	1.0 lux	0 lux	0.2 ~ 1.0 lux
Aperture size	F 2.0	F 2.0	F 2.0
Iris control	electronics	electronics	DC control
Optical zoom	2 x ; manual	--	--
Focus adjustment	Manual	--	--
IR illumination	--	Yes	--

Measurement

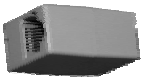
		Standard version	Day & Night	Vari-focus
Dimension	D	102	102	128
(cm)	H	160	160	168
Weight	gm	454	474	674

Power Requirement

	Standard version	Day & Night	Vari-focus
Operation Voltage	12V dc	12V dc	12V dc
Current (mA; max)	850	1000	900

Appendix --- Accessory

The following accessories might be needed during the system installation. Consult to your dealer or electronic technician for details if you need to.

BNC to BNC Cable		used for video signal connection; better noise immunity
RCA to BNC converter		to convert RCA plug to BNC plug;
RCA to RCA extension jack		for RCA cable length extension
RJ-11 extension box		for phone line wire extension or number (quantity) expansion
RJ-11 extension socket		for phone line length extending or number (quantity) expansion
RJ-45 to RJ-45 extension jack		to extend the length of the LAN cable
RCA to RCA Video Cable		To transmit video signal from the camera to DVR or VCR